



CM10: PIEZO LISTENING

MZ KF AM May 2022



CM10 Piezo listening



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* Definition:

"Move" – We send a command to SM Driver to start rotate it for N turns.



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Move CTS1. Beckhoff. ~04A

Move CTS2. Beckhoff. ~0.4A

Interesting that the piezo of opposite to moving CTS show higher voltage then piezo which placed in actually moving CTS (Only for Beckhoff driver).

Acoustic resonance?







When we move CTS2 in PZ01 signal clear visible the "low frequency component", which can be interpreted like stack motor micro step fluctuation.











No significant difference in Vpp and FFT between CTS1 and CTS2 during Beckhoff usage.



CM10 Piezo listening. Phytron vs Beckhoff •



Vpp from PZ01 in 2 order of magnitude higher when we use a Beckhoff driver! FFT show more stronger "vibrations" when we use a Beckhoff driver.



CM10 Piezo listening. Beckhoff at diff. speed



Increasing of SM speed is also increase the amplitude of spectrum harmonic components.





